

Sibbaldiopsis tridentata Found in the Catskills

RAYMOND H. TORREY

In a previous note regarding the scattered distribution of *Sibbaldiopsis* (*Potentilla*) *tridentata*, on mountain tops from Maine to North Carolina, and its absence, so far as I then knew, from any of the Catskill summits, and the Great Smokies in Tennessee, which were included in my personal observations, I speculated whether the plant did not prefer exclusively open, bleak situations.

I have recently received two interesting communications on this subject: one from Dr. Edgar T. Wherry, Chief of the Bureau of Chemistry and Soils of the United States Department of Agriculture, explaining the occurrences of *Sibbaldiopsis* on the basis of its probable intolerance of shade, and the other, from Mr. William Gavin Taylor, of Arlington, N. J., reporting that he found the plant in the Catskills, on Overlook Mountain, a summit which I had not examined. Mr. Taylor's location, on an open ledge, at the brink of a cliff, overlooking the Hudson Valley, with a sweep of northern winds for a hundred miles, is possibly the only stand of the plant in the Catskills. I am sure it is not found on more than twenty other high summits on which I have looked for it, in this region.

Dr. Wherry wrote, regarding my inquiry as to the distribution of *Sibbaldiopsis*: "I have been trying to work out some explanation of this based on the chemical character of its soils, but without success. It seems to grow on gravelly soils irrespective of their derivation, although always acid in reaction. So my conclusion would be that this plant is absent on some mountains where one might expect it because it is so intolerant of shade and competition. It evidently survived the glacial period on the peaks of the Blue Ridge in Virginia and North Carolina—by the way, these are largely of Archaean rocks—and then gradually migrated northward when the ice retreated. Carrying of seeds by the wind seems out of the question, so birds are the only likely means of transportation. I suppose that once in a thousand years a seed of it might stick to a bird's feet or feathers, and when this bird alighted on another similar peak for food the seed dropped off and started a colony there. Under such circumstances chance evidently plays a large role, and the absence of the plant on a particular mountain might merely mean that this 'ac-

cident' did not happen to occur on that one. On the other hand, when there is a series of peaks like the Catskills, the plant surely got onto some of them shortly after the glacial period, and thrived there for a time until the forest invaded the mountain when it died out. Its absence on Mt. LeConte can be similarly explained, namely it was there once, but was subsequently killed out by the advance of the forest. Of course even on forested mountains there are some bare ledges, but if the plant did not happen to reach these particular ledges in time, it would not be preserved there."

Mr. Taylor, reporting on *Sibbaldiopsis* on Overlook Mountain, says: "Mrs. Taylor and I did not appreciate that this plant was a special rarity in the Catskills. In September we found the plant (not in bloom) on the easterly top rocky cliff on Overlook. We followed the trail from the old burned hotel, up along the edge of the easterly rampart where we found the plant growing strongly on the exposed ledges. We checked the plant, upon our return home, against Britton & Brown. The plant was a new find for us and we were quite pleased with our discovery. The elevation was about 3100 feet."

Mr. Taylor's location is one of the most exposed spots in the Catskills, with the full sweep of the winds down the Hudson Valley, and is probably the only place in the region left that is bleak enough to please *Sibbaldiopsis*.

My report that this plant was threatened with extermination on High Point, on Kittatiny Mountain, the only stand in New Jersey, owing to the construction of a huge monument to the war veterans of the state, interested two persons who propose to try to save or restore it. Mr. J. A. Allis, of Upper Montclair, N. J., said that if it proves after the construction of the monument is finished and the ground cleared up, that none of the species is left, he will bring some from the northern mountains and replant it there, in some place where visitors will not disturb it. Major W. A. Welch, General Manager of the Palisades Interstate Park, has urged John J. Stanton, secretary of the High Point State Park Commission, to preserve and restore the natural mountain top turf after the debris of construction and laying out of the automobile road and parking place is cleared, and Mr. Stanton has promised to do it. So we shall see if any of the plant is left, and report accordingly, and if not Mr. Allis will restore it.

HOLLIS, LONG ISLAND